Installation and Operation Manual

keeping your home safe and clean

Room Air Conditioners

Bravo Inverter Range Split Type
DC Inverter

ECO916SD

ECO1216SD

ECO1816SD

ECO2416SD

Register your air conditioner

Model information can be found on the CE label.

Please register your product online at www.ecoair.org. For your future convenience, record the model information below.

_____
MODEL NUMBER

_____
SERIAL NUMBER

_____
PURCHASE DATE

WARNING: Before operating your unit

Make sure the wiring is adequate for your unit.

Before you install or relocate this unit, be sure that the amperage rating of the circuit breaker complies with the amp rating listed in Figure 1.

DO NOT use an extension cord.

The cord provided will carry the proper amount of electrical power to the unit; an extension cord will not.

Make sure that the Power Supply is compatible with the air conditioner.

WARNING

Electrical Shock Hazard

Always consult a qualified electrician regarding the power supply to the appliance.

Do not use plug adapters.
Do not use an extension cord.
Do not remove ground prong.

Always plug into a grounded 3 prong outlet. Failure to follow these instructions can result in death, fire, or electrical shock.

Safety Precautions

Input Rated Amp

Model	Power Supply	Input Rated Amp (Switch/Fuse)
Up to 12,000 Btu/h (3.5kW)	220-240V ~ 50Hz	13A
18,000 Btu/h (5kW)		20A
More than 18,000 Btu/h (5kW)		32A

Note : The supply voltage can not be less than the rate voltage of the air conditioner.

Warning

- **Installations must comply with the national wiring standards and conform to local authority regulations. Incorrect installation could cause injury due to fire, electric shock, the unit falling or leakage of water. Consult the dealer from whom you purchased the unit or a suitably qualified installer.**
- **Do not modify or attempt the air conditioner without permission or instruction from the manufacturer.**
- **Install the unit securely and ensure location of installation can bear the weight of the air conditioner.**
- **Do not install or operate the air conditioner in areas where harmful or flammable gas are present.**
- **Any maintenance on the air conditioner must only be carried out after disconnecting from the electric mains supply.**
- **Any repairs must be carried out by a suitably qualified engineer.**
- **Ensure the air conditioner is connected to an earthed power supply of the correct rating.**
- **Do not unplug the air conditioner whilst in operation. Always use the control panel to start and stop the air conditioner.**
- **Do not obstruct or cover the inlet and outlet grilles.**
- **Do not use the air conditioner in a wet room, such as bathroom. Do not allow spray or pour water over directly onto the air conditioner. Always handle the air conditioner with dry hands.**

For the best cooling performance and highest energy efficiency

Keep the filter clean

Make sure that your air conditioner is always in top performing condition by cleaning the filter regularly. Instructions for removing and cleaning the filter can be found on page 12.

Provide good air flow

Make sure the airflow to and from the unit is clear. Your air conditioner blow the cold air out at the top of the unit, and takes in the warm air from the room at the bottom. Airflow is critical to good operation. It is just as important on the outside of the building that the airflow around the unit exterior is not blocked.

Unit placement

If your air conditioner can be placed in a window or wall that is shaded by a tree or another building, the unit will operate even more efficiently. Using drapes or blinds on the sunny side of the dwelling will also add to your unit's efficiency.

Insulation

Good insulation will be a big help in maintaining desirable comfort levels. Doors should have weather stripping. Be sure to caulk around doors and windows.

Note: if you switch from Cool mode to Fan Only, and switch back to COOL mode, there is a three minute delay before the compressor comes back on.

BS Plug Wiring

(For models up to 12000 Btu)

Wiring Instructions: Should it be necessary to change the plug please note the wires in the mains lead are coloured in accordance with the following code :

BLUE - NEUTRAL
BROWN – LIVE
GREEN AND YELLOW - EARTH

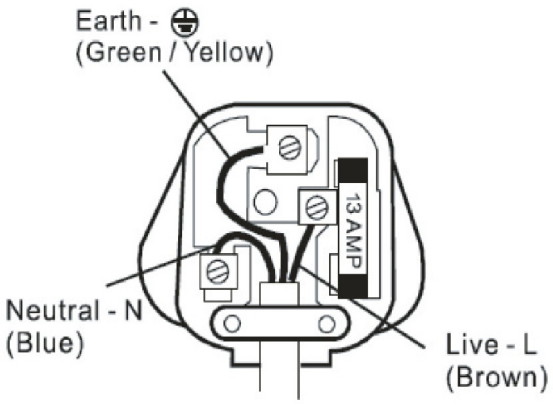
As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

1. **The BLUE wire is the NEUTRAL and must be connected to the terminal which is marked with the letter N or coloured BLACK.**
2. **The BROWN wire is the LIVE and must be connected to the terminal which is marked with the letter L or coloured RED.**
3. **The GREEN/YELLOW is the EARTH and must be connected to the terminal which is marked with the letter E or ⏚ or coloured GREEN OR GREEN/YELLOW.**
4. **Always ensure that the cord grip is positioned and fastened correctly.**

If a 13A (BS 1363) fused plug is used it must be fitted with a 13A fuse. If in doubt consult a qualified electrician.

Wiring for a 13 Amp Plug (BS1363)

Please note. The Earth Terminal is marked with the letter E or ⏚ Earth Symbol.



Congratulations!

You have purchased the very latest in room air conditioner technology. Your new EcoAir high efficiency room air conditioner will give you many years of dependable service. Many features have been built into your EcoAir air conditioner to assure quiet operation, the best circulation of cool, dry air, functional controls, and the most economical operation.

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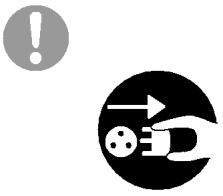
Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary. When this product reaches its end of life, contact your local authorities regarding disposal.

◆ Operation and maintenance-notices for operation

⚠ ★ Earth: The ground be connected!

If not, please ask the qualified personnel to install. Furthermore, don't connect each wire to the gas pipe, water pipe, drainage pipe or any other improper places.

★Be sure to remove the power plug when not using the air conditioner for a long time.

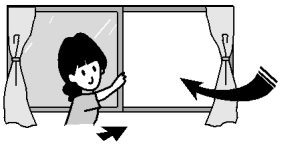


Otherwise, the accumulated dust may cause fire or electric shock.

★Select the most appropriate temperature.

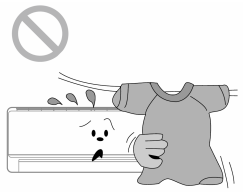
It can preclude the electricity wasted.

★ Don't leave windows and doors open for a long time while operating the air conditioner.



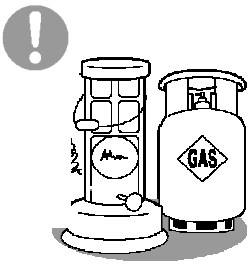
It can decrease the air conditioning capacity.

★ Don't block the air intake or outlet vents of both the outdoor and indoor units.



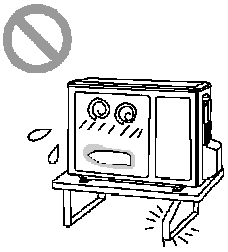
It can de crease the air conditioning capacity or cause a malfunction.

★ Keep combustible spray away from the units more than 1m.



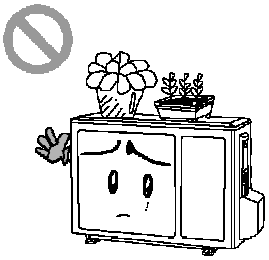
It can cause afire or explosion.

★ Please note whether the installed stand is firm enough or not.



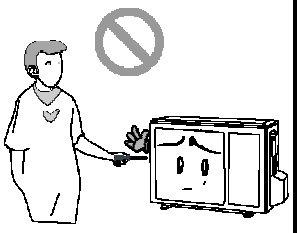
If it is damaged, it may lead to the fall of the unit and cause the injury.

★ Don't step on the top of the outdoor unit or place something on it.



As falling off the outdoor unit can be dangerous.

★ Don't attempt to repair the air conditioner by yourself.

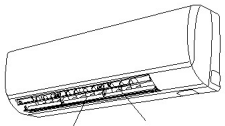


The wrong repair will lead to an electric shock or fire, so you should contact the service centre to repair.

◆ Notices for operation

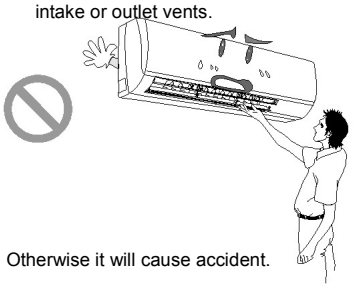
★If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.

★The airflow direction can be adjusted appropriately. At operating, adjust the vertical airflow direction by adjusting the louvers of upward/downward direction. And then, hold two ends of left and right louver to adjust the horizontal airflow.



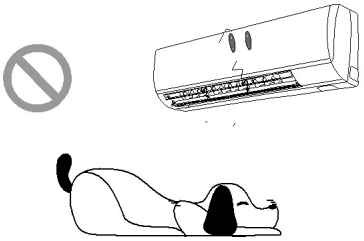
Louver of left/right direction Louver of upward/ downward direction.

★ Don't insert your hands or stick into the air intake or outlet vents.

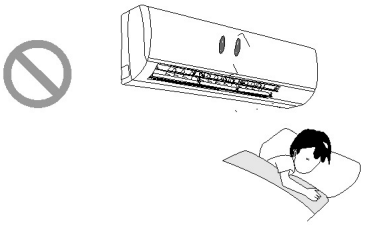


Otherwise it will cause accident.

★ Don't blow the wind to animals and plants directly. It can cause a bad influence to them.

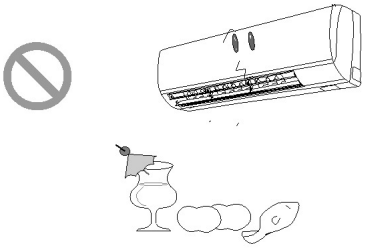


★ Don't apply the cold wind to the body for a long time.

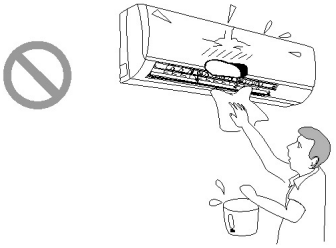


It can cause the health problems.

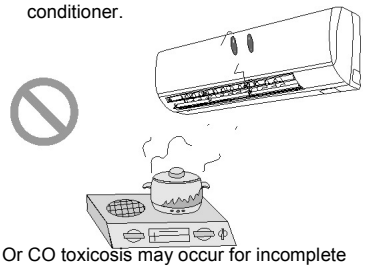
★ Don't use the air conditioner for other purposes, such as drying clothes, preserving foods, etc.



★ Splashing water on the air conditioner can cause an electric shock and malfunction.



★ Don't place a space heater near the air conditioner.



Or CO toxicosis may occur for incomplete burning.

◆ Notices for use

Working principle and special functions for cooling

Principle:

The air conditioner transfers heat from the indoor area to the outdoor area, thus reducing the indoor room temperature, using heat pump technology.

Anti-freezing function:

In COOL mode under low ambient temperature, frost will form on the heat exchanger. When the indoor heat exchanger temperature decreases to below 0℃, the indoor unit microcomputer will stop the compressor from running. This is normal and is important to protect the compressor and prolongs the life of the air conditioner.

Working principle and special functions for heating

Principle:

* The air conditioner transfers heat from outdoor area to the indoor area, thus increasing the indoor room temperature using heat pump heating technology.
* In extreme cold temperature, the condenser will require defrosting regularly. You may need to use alternative heating equipment.

Defrosting:

* When outdoor temperature is low but high humidity, frost will form on outdoor unit that will affect the heating, resulting in the auto defrost function where the heating will stop for 8-10mins.
* During the auto defrosting, the fans of indoor and outdoor unit will stop.
* During the defrosting, the indoor indicator flashes, the outdoor unit may emit vapour. This is normal and is not a malfunction.
* Once defrosting is completed, the heating will recover automatically.

Anti-cool wind function:

In the “Heat” mode, the indoor fan operation will be delayed to prevent cold air being expelled for additional comfort.

It is apparent during the start of the heating mode, upon completion of the Auto Defrosting and heating during very low temperature.
It is normal for the indoor unit to expel low air flow and the louver to rotate to a certain position:

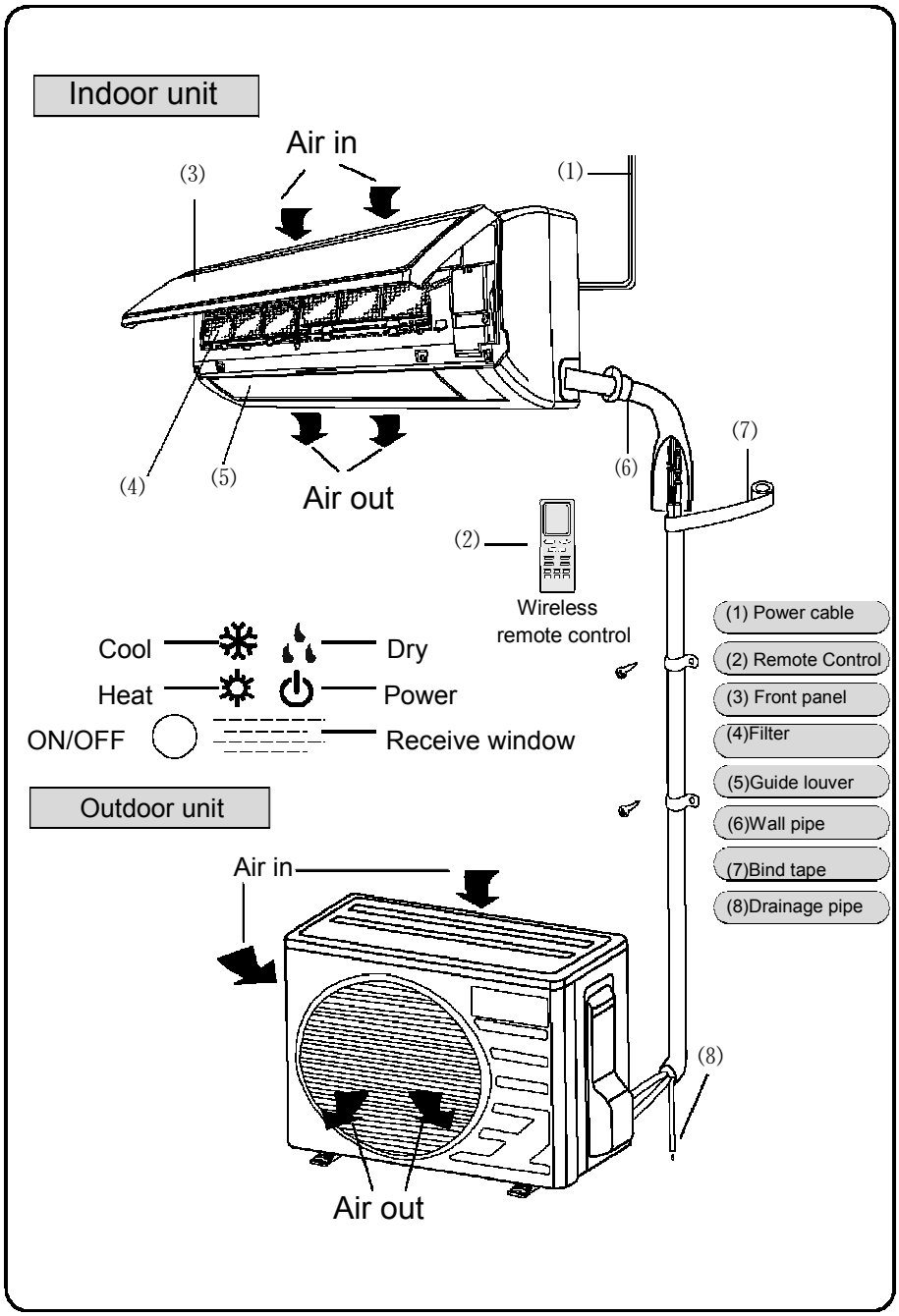
1. In “Heat” mode, upon starting, the compressor running is delayed.
2. In “Heat” mode, upon reaching the set temperature, the compressor stops running for about 1 min.

◆ Notices for use

※ Working temperature range		
	Indoor side DB/WB(°C)	Outdoor side DB/WB(°C)
Maximum cooling	32/23	48/ -
Minimum cooling	21/15	10/-
Maximum heating	27/---	24/18
Minimum heating	20/---	-15/-

The operating temperature range (outdoor temperature) for cooling unit is 21℃～43℃； for cooling and heating unit is -5℃～43℃.

◆Names and functions of each part



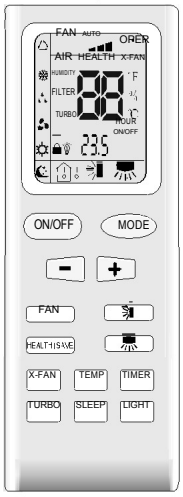
◆ Operation of remote control

Names and functions of remote control buttons

Note: Ensure there is no obstruction between the indoor unit and the remote control; Don't drop or throw the remote control; Don't spill any liquid onto remote control. Do not put the remote control directly under the sunlight or heated areas.

Signal transmitter

Remote control



ON/OFF

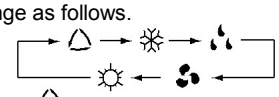
ON/OFF button

- Press this button to power on and off . (This clears the timer or sleeping function previously set).

MODE

Mode button

- Press this button, the running mode will change as follows.



AUTO
COOL
DRY
FAN
HEAT

(+/−)

TEMP. (+/−) button

- Press the + button to increase the setting temp by 1℃.

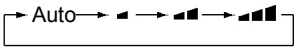
  Press the - button to decrease the setting temp by 1 ℃

  Press the button continuously to accelerate the change in the temperature (range 16～30℃)。

FAN

FAN speed button

- Press this button once, fan speed will change as below:



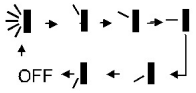
Low speed Middle speed High speed

Note:Under the Dry mode, the fan speed isn't adjustable, low fan speed is imperative.

Swing up and down button

- The unit is defaulted to the Simple Swing Mode.
- Press this button to activate or deactivate the up and down swing function.
- When unit is turned off, synchronously press "+" and Up and down swing buttons, to switch between the Simple Swing Mode and Stationary Swing Mode.

  blinks 2 seconds.
- In Stationary swing mode, press this button, the angle for Up and down swing as show in below:



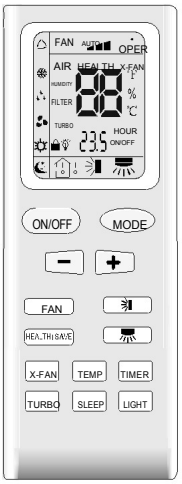
- When up and down swing louver mode is selected, the swing louver will immediately stop at current position when switched off.

Operation of remote control

Names and functions of remote control buttons

NOTE: This remote control may have some buttons that are not available to your model.

Remote control



HEALTH SAVE

HEALTH I SAVE button

- SAVE function: Under Cool mode, press the right part of this button, the remote control will display" SE "(save electricity), press again to quit this mode. Other modes will not function.

- When save mode is on, the temperature and fan speed are not adjustable.

- Note: The HEALTH option is not available for this unit. If you press the left hand side of the HEALTH/SAVE button, the unit will click but it will not have any other effect.

TURBO

Turbo button

- Set turbo on or off (the characters of turbo will appear or disappear) by pressing this key under cooling or heating mode. Once energized, the unit will be return to non turbo mode. This function can not be set under auto, dehumidify or fan mode.
  Use the turbo mode to increase the fan speed.

.

TIMER

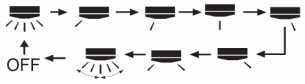
Timer button

- Whilst unit is on, you may press this button to set timer off. Whilst unit is off, you may press this button to set timer on. Press this key once, the words Hour on(off) will appear and flicker. Press +/- button to adjust time (press+/- button continuously to change timing value quickly), the setting time range is from 0.5 to 24 hr.; press this key once again to fix the time, then remote controller will send out the signal immediately and hour on/off will stop flickering. Under the flickering status, the timer setting will quit if you do not press the timer button within 5 second. If the timer has been set, press this button once again to exit.

Left and right swing button

- The unit is defaulted to the Simple Swing Mode.
- Press this button to activate and deactivate the left & right swing function. When unit is turned off, synchronously press "+" and left and right swing buttons, to switch between the Simple Swing Mode and Stationary Swing Mode.
  blinks 2 seconds.

- In Stationary swing mode, press this button, the angle for left and right swing as show in below:



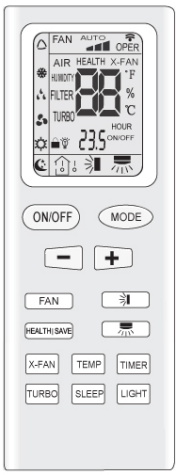
- When left and right swing louver mode is selected, the swing louver will immediately stop at current position when switched off

◆ Operation of remote control

Names and functions of remote control buttons

NOTE: **Some buttons of this control are not available to your model.**

Remote control



SLEEP

Sleep button

- Press this button, Sleep On and Sleep Off can be selected. After powered on, Sleep Off is defaulted. After the unit is turned off, the Sleep function is canceled. After Sleep function set up, the signal of Sleep will display. In this mode, the time of timer can be adjusted. Under Fan and Auto modes, this function is not available.In sleep mode, setting temperature is adjusted automatically.

X-FAN

X-FAN button **(Blow)**

- Pressing X-FAN button in COOL or DRY mode,the icon "X-FAN" is displayed and the indoor fan will continue operation for 10 minutes after powering off to dry the evaporator. This function cleans the evaporator and minimises risks of mould and mildew growing inside the unit.

  X-FAN is not available in AUTO,FAN and HEAT mode.

LIGHT

Light button

- Press this button to select LIGHT on or off on the display. When the LIGHT on is set,the icon will be display and the indicator light on the display will be on. When the LIGHT off is set, the icon will be displayed and the indicator light on the display will be off.

TEMP

TEMP button

- By default, the display shows the setting temperature. Press this button to display the ambient room temperature. The setting temperature will return after 5 seconds. (Pressing the Temp button again within 5 seconds to toggle between setting temperature and ambient temperature)

◆Operation of remote control

Guide for operation-general operation

1.Press ON/OFF button to start the unit after powering the main unit on.(Note: The big -guide louver and small-guide louver will close automatically during Power on).

2.Press MODE button to select desired running mode.

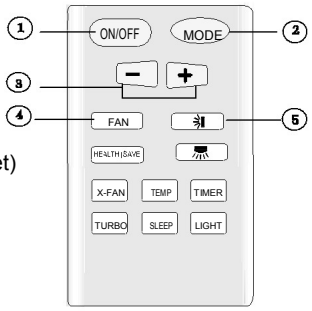
3.Press +/ - button to set the desired temperature.

(You cannot set the temperature in AUTO mode, it is preset)

4. Press FAN button to set fan speed, (AUTO FAN, LOW, MID or HIGH).

5. Press and button to set swing mode.

(button only for some models)



Guide for operation-optional operation

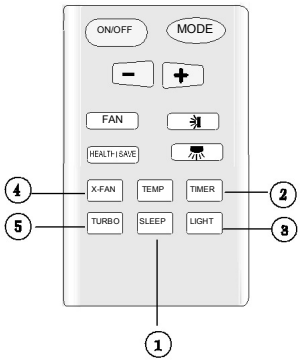
1.Press SLEEP button, set the sleep mode.

2.Press TIMER button, then press +/- button, to set the scheduled timer on or timer off.

3. Press light button to control display light on or off.

4. Press X-FAN button to set X-FAN function on or off.

5. Press turbo button to set this function on or off.



Introduction for special function

★ **About X-FAN function**

This function removes moisture on the evaporator of indoor unit, after the unit is stopped to avoid mould and bacteria growth.

During X-FAN function on: After turning off the unit by pressing ON/OFF button indoor fan will continue running for about 10 min. at low speed. During this, pressing the X-FAN button will stop this function.

◆ Operation of remote control

★About AUTO RUN

When AUTO RUN mode is selected, the setting temperature will not be displayed on the LCD, the unit will be in accordance with the room temp. automatically to select the suitable running method and to make ambient comfortable.

★About turbo function

If start this function, the unit will run at super-high fan speed to cool or heat quickly so that the ambient temp. approaches the preset temp. as soon as possible.

★About lock

Press +and - buttons simultaneously to lock or unlock the keyboard. If the remote controller is locked, the icon will be displayed on it, in which case, press any button, the mark will flicker for three times. If the keyboard is unlocked, the mark will disappear.

★About switch between Fahrenheit and Centigrade

Under status of unit off, press MODE and - buttons simultaneously to switch ◦C and ◦F.

Changing batteries and notices

1. Slightly to press the place with , along the arrowhead direction to push the back cover of wireless remote control. (As show in figure)
2. Take out the old batteries. (As show in figure)
3. Insert two new AAA1.5V dry batteries, and pay attention to the polarity. (As show in figure)
4. Attach the back cover of wireless remote control. (As show in figure)

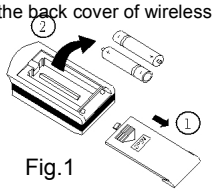


Fig.1

★ NOTE:

- When changing the batteries, do not use the old or different batteries, otherwise, it can cause the malfunction of the wireless remote control.
- If the wireless remote control will not be used for a long time, please take them out, and don't let the leakage liquid damage the wireless remote control.
- The operation should be in its receiving range.
- It should be placed at where is 1m away from the TV set or stereo sound sets.
- If the wireless remote control can not operate normally, please take them out, after 30s later and reinsert, if they cannot normally run, please change them.

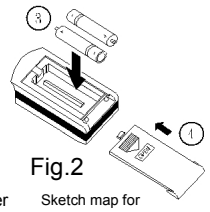


Fig.2

Sketch map for changing batteries

◆ Emergency operation

Display indicator light control of indoor unit

It's a special selective button for the users, who are not accustomed to the light at sleeping.

- Get the display indicator light on: When setting the light function, the mark will display on the remote controller screen by pressing this button. In which case, the diss-player indicator light will be on if the AC receives this signal.

- Get the display indicator light off: If cancel the light function,the mark will disap-per on the remote controller screen by pressing this button. In which case, the display indicator light will be off if the AC receives this signal.

Emergency operation

If the wireless remote control is lost or broken, please use the manual switch button. At this time, the unit will run at the Auto mode, but the temperature and fan speed cannot be changed. The operation was shown as below:

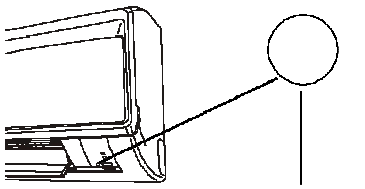


Fig.3

To open the panel, the manual switch is on the display box.

- Turn on the unit: At unit turned off, press the button, the unit will run at Auto mode immediately. The microcomputer will accord to the indoor temperature to select (Cooling, Heating, Fan) and obtain the comfortable effect.
- Turn off the unit: At unit turned on, press the button, the unit will stop working.

◆ Clean and care

Caution

- Turn power off and pull out the power plug before cleaning air conditioner, or it may cause electric shock.
- Never sprinkle water on the indoor unit and the outdoor unit for cleaning because it can cause an electric shock.
- Volatile liquid (e.g. thinner or gasoline) will damage the air conditioner. (So wipe the units with a dry soft cloth, or a cloth slightly moistened with water or cleanser.)

Clean the front panel

When cleaning the front panel, please dip the cloth into the water temperature of 45°C below, then to dry the cloth and wipe the dirty part.

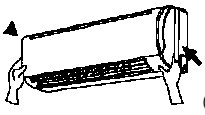
Note: Do not immerse the front panel in water, due to there are microcomputer components and circuit diagrams on the front panel.

Clean the air filter (Recommended once every three months)

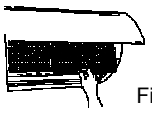
NOTE: In dusty environment, more frequent cleaning will be required. After taking off the filter, do not touch the fin of indoor unit to avoid damage to the fins and cuts to fingers.

① Take down the air filter

At the slot of surface panel to open an angle, pull the air filter downward and take it out, see Fig. 4(a, b).



(a)



(b)

Fig.4

② Clean the air filter

Use a vacuum cleaner to wash them with warm water and mild detergent and air dry.

NOTE: Never use water above 45°Cto clean, or it can cause deformation or discoloration.

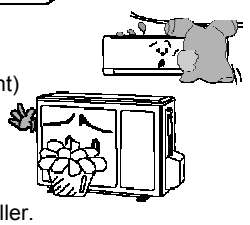
Avoid parching in heated areas to avoid fire or deformation.

③ Insert the air filter

Reinsert the filters along the direction of the arrowheads, close the cover and clasp back in position.

◆ Clean and care

Check before use



① Be sure that nothing obstructs the air outlet and intake vents.

② Check that ground wire is properly connected or not. (Important)

③ Check that the batteries of the remote control changed if remote is not working.

④ Check that the installation stand of the outdoor unit is damaged or not. If damaged, please contact your installer.

Maintain after use

① Turn main power off.

② Clean the filter, clean the indoor and outdoor units' panels

③ Clear dust and obstructions from the outdoor unit.

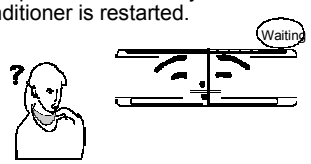
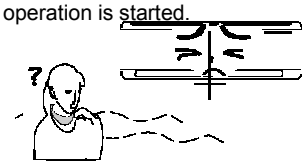
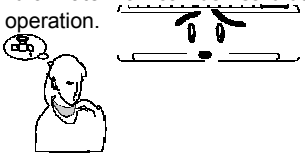
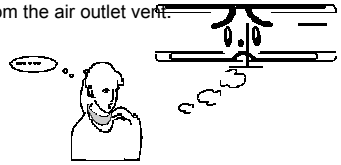
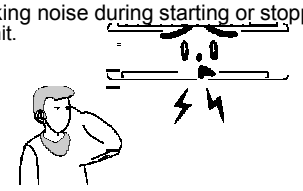
④ Repaint the rubiginous place on the outdoor unit to prevent it from spreading.

⑤ Adopt a special shield to cover the outdoor unit to avoid rain water and dust from entering the unit where possible.

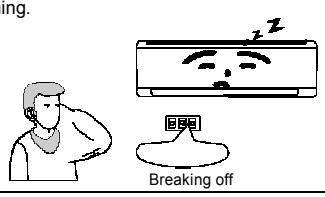
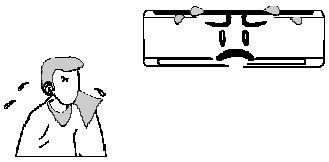
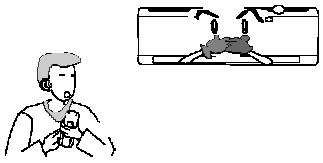
◆ Troubleshooting

CAUTION

Don't attempt to repair the air conditioner by yourself, it can cause an electric shock or fire. Please check the following items before asking for repair, it can save your time and money.

Problem	Troubleshooting
Not operate immediately when the air conditioner is restarted. 	● Once the air conditioner is stopped, it will not operate in approximately 3 minutes to protect itself.
There's unusual smell blowing from the outlet after operation is started. 	● The unit has no peculiar smell in itself. If it does smell, it is due to the smell accumulated in the ambient air in the room. ● Solution method: Cleaning the filter. If problem persists, obtain a maintenance service from your installer.
Sound of water flow can be heard during the operation. 	● The air conditioner is started, when it is running the compressor started or stopped running, or the unit is stopped, sometimes there is swoosh or gurgle, this sound is due to refrigerant flowing and is not a malfunction.
In COOL mode, sometimes the mist is emitted from the air outlet vent. 	● When the indoor temperature and humidity are very high, this is normal. This is caused when the room air is cooled down. After running for a while the indoor temperature and humidity will be under control and the mist will stop.
Creaking noise during starting or stopping the unit. 	● This is caused by slight expansion of the panels due to the changes of temperature. ● This is normal and is not a malfunction.

◆ Troubleshooting

Problem	Troubleshooting
The unit is not running.  	● Has the power been shut down? ● Is power connected properly? ● Is the circuit protection device tripped off or not? ● Is voltage higher or lower? (Tested by professionals) ● Is the TIMER correctly used?
Cooling(Heating) efficiency is not good. 	● Is Temp. setting suitable? ● Were inlet and outlet vents obstructed? ● Is filter dirty? ● Are the windows and doors closed? ● Is the Fan speed set at low speed? ● Is there any heat sources in the room?
Wireless remote control is not available. 	● The unit is interfered by abnormal or frequent functions switchover occasionally the controller cannot operate. At this time, you need to pull out of the plug, and reinsert it. ● Is it in its receiving range? Or obstructed? To check the voltage in wireless remote control inside is charged, otherwise to replace the batteries. ● Whether the wireless remote control is damaged.
If water leakage in the room.	● The air humidity is on the high side. ● Condensing water over flowed. ● The connection position of indoor unit drainage pipe is loosed.
If water leakage in outdoor unit.	● When the unit is running in COOL mode, the pipe and connection of pipe would be condensed due to the water cooled down. ● When the unit is running in Auto Defrosting mode the ice thawed and flowed out. ● When the unit is running in HEAT mode, the water adhered on heat exchanger dripped off.
Noise from indoor unit emitted.	● The sound of fan or compressor relay is switching on or off. ● When the defrosting is started or stop running, it will sound. That is due to the refrigerant flowed to the reverse direction.

◆ Troubleshooting

Problem	Troubleshooting
No air delivery from indoor unit.	● In HEAT mode, when the indoor temperature is very low, air delivery will be delayed for up to 5 minutes. ● In HEAT mode, when the outdoor temperature is low or high humidity, frost may form on the outdoor heat exchanger. This will require defrosting before air delivery; The defrosting can take up to 20 minutes. ● During the defrosting, water and vapor is produced so condensation will occur. ● In dehumidifying mode, indoor fan will stop, in order to avoid condensed water to be vaporized again. The air delivery is delayed during this action.
Moisture on air outlet vent.	● If unit is running in high humidity condition for a long time, the moisture will be condensed on the air outlet grill and drip off.

Immediately stop all operations and plug out, contact the dealer in following situations.

There is harsh sound during operation.
Terrible odours are emitted during operation.
Water is leaking in the room.
Air switch or protection switch often breaks.
Water spillage into unit.
There is an abnormal heat in power supply cord and power plug.

▶ Stop running and pull out of the plug.

◆ Notices for installation

Important Notices

1. Installation work must be done by competent or qualified persons according to local rules and this manual.
2. All electric supply to the unit must be carried out by qualified electrician.
3. Reinstallation of the unit must be carried out by qualified persons.
4. The appliance must be positioned so that the power supply is accessible.

Basic Requirements For Installation Position

Installations in the following place may cause malfunction.

- Locations where strong heat sources, vapors, flammable gas or volatile object are emitted.
- Locations where high-frequency waves are generated by radio equipment, welders and medical equipment.
- Locations such as coastal areas where a lot of salinities exists.
- Locations where oil (eg. machine oil) is contained in the air.
- Locations such as hot spring zones where a sulfured gas is generated.

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Indoor Unit Installation Position Selection

1. The air inlet and outlet vent should be far from any obstruction, make sure that air is well ventilated throughout the whole room.
2. Select a position where the condensing water can be easily drained out, and the place is easily connected for outdoor unit.
3. Select a location where it is out of children reach.
4. Select a location where is strong enough to withstand the full weight and vibration of the unit.
5. Leave sufficient space to allow access for routine maintenance. The height of the installed location for the indoor unit should be 250cm or more from the floor.
6. Select a place about 1m or more away from TVset or any other electric appliances.
7. Select a place where the filter can be easily taken out.
8. The indoor unit should be installed according with installation dimension diagram requirements.
9. Do not use the unit in the immediate surroundings of a laundry, bath, shower or swimming pool.

◆ Notices for installation

Outdoor Unit Installation Position Selection

1. Select a location from which noise and outflow air emitted by unit will not be a nuisance to neighbours, animals or plants.
2. Select a location where there should be sufficient ventilation.
3. Select a location where there should be no obstructions to the inlet and outlet vent.
4. The location should be level and able to withstand the full weight and vibration of the outdoor unit
and permit safe installation.
5. Select a dry place, but do not expose under the direct sunlight or strong wind.
6. The outdoor unit should be install according to the installation dimension diagram and maintenance and repair.
7. Check the maximum pipe length and lift is within the specification for your model.
8. Select a place where it is out of reach of children.
9. Check that your local authority permits installation of outdoor unit in the desired location.

Safety Requirements For Electric Appliances

1. The power supply must be the appointed rated voltage and on a dedicated circuit. The use of the correct power cable diameter is required.
2. Don't drag the power cable emphatically.
3. It must be earthed, and it should be connected to the special earth device operated by a qualified electrician.
   The air switch must have the functions of magnetic tripping and heat tripping, in order to protect the short circuit and overloading.
4. The min. distance from the unit and combustive surface is 1.5m.
5. The appliance shall be installed in accordance with national wiring regulations.
6. An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.

Note:

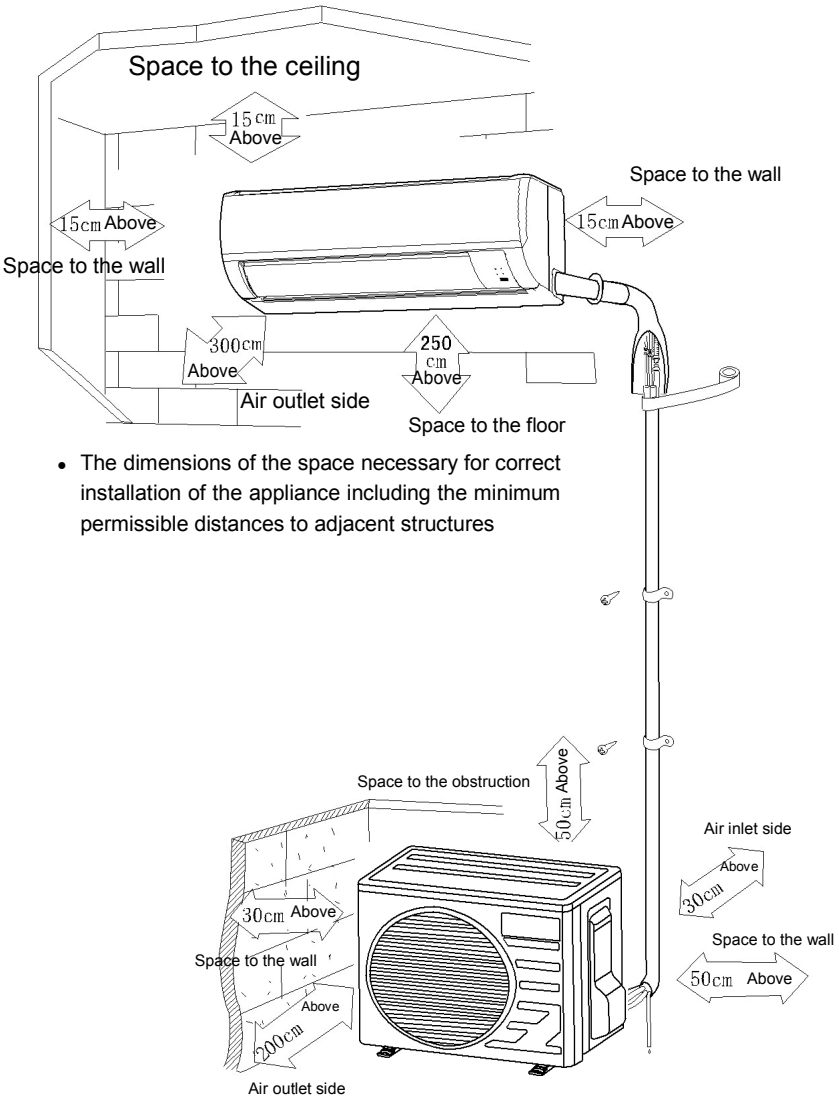
- Make sure that the Live and the Earth wire in the family power socket is correctly connected, there should be reliable and no short circuit in the diagram.
- Wrong connection may cause fire or the circuit board to malfunction.

Earthing requirements

1. Reliable earthing is required.
2. The yellow-green two-color wire in air conditioner is earthing wire and cannot be used for other propose. It cannot be cut off and be fix it by screw, otherwise it would cause electric shock.
3. The earth resistance should comply with the national regulations.
4. The user power must offer the reliable earthing terminal. Do not connect the earthing wire to the following:
   ① Tap water pipe. ② Gas pipe. ③Contamination pipe.
   ④ Other places that may be risky

◆ Installation dimension diagram

Installation dimension diagram



- The dimensions of the space necessary for correct installation of the appliance including the minimum permissible distances to adjacent structures

◆Install indoor unit

Install the rear panel

1.Always mount the rear panel horizontally. The outlet of water tray should be adjusted slightly downward when installing to enable gravity flow of condensation externallv.

2.Fix the rear panel on the wall with screws. (Where is pre-covered with plastic granula)

3.Be sure that the rear panel has been fixed firmly enough to withstand the weight of an adult of 60kg, further more, the weight should be evenly shared by each screw.

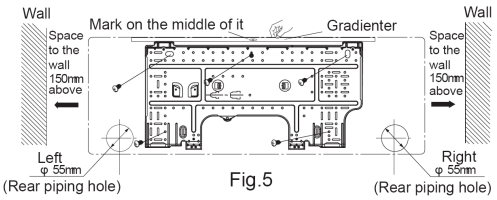
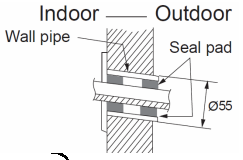


Fig.5

Install the piping hole

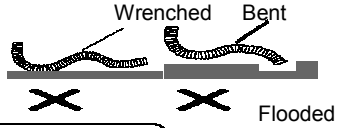
1. Make the piping hole (Φ55) in the wall at a slight downward slant to the outdoor side.
2. Insert the piping-hole sleeve into the hole to prevent the connection piping and wiring from being damaged when passing through the hole.



Install the water drainage pipe

1. The drain hose should be placed at a downward slant otherwise the water will fail to drain outward causing leakage from the indoor unit

2.Do not wrench or bend the drain hose or flood its end with water



Connect indoor and outdoor electric wires

1.Open the surface panel.
2.Remove the wiring cover .
3.Route the power connection cord and signal control wire (for cooling and heating unit only) from the back of the indoor unit and pull it toward the front through the wiring hole for connection.
4.Connect the interconnection cord to the terminal block, and then fix the cord with cord anchorage.
5.Reassemble the clamp and wiring cover.
6.Recover the surface panel.

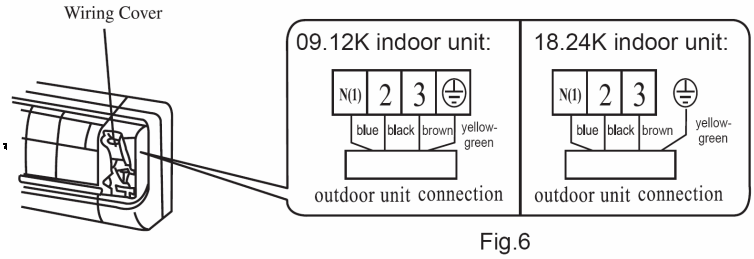


Fig.6

◆ Install indoor unit

NOTE:

Where the electric cable length is not long enough, replace with another that is long enough as joints on the cables are not to be avoided. Ensure the replacement cable is of the same quality and diameter.

- The electric wiring must be correctly connected, wrong connection may cause spare parts malfunction.
- Tighten the terminal screw.
- After tightening the screw, slight pull the wire to confirm it is firm.
- Wrong connection of earth wire may cause electric shock.
- The cover plate must be reinstalled, otherwise shock, dust and moisture may cause fire, electric shock or unit malfunction.

Install the indoor unit

● The piping can be lead out from right, right rear, left left rear.

1. When routing the piping and wiring from the left or right side of indoor unit, cut off the tailings from the chassis necessary(Show in Fig.7)
   (1)Cut off the tailings 1 when routing the wiring only;
   (2)Cut off the tailings 1 and tailings 2 when routing both the wiring and piping.
2. Gently route the piping from the body case, wrap the piping, electric wire, water pipe with tape and pull them through the piping hole (As show in Fig.8)
3. Hang the mounting slots of the indoor unit on the upper tabs of the rear panel and check if it is firm enough.(As show in Fig.9)
4. The height of the installed location should be 2.5m or more from the floor.

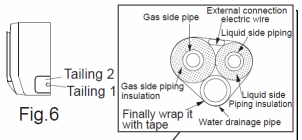


Fig.6

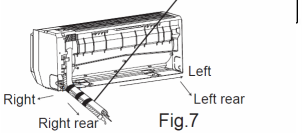


Fig.7

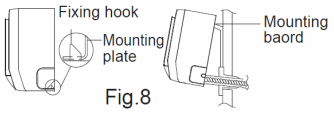
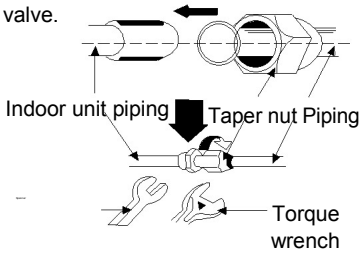


Fig.8

Install the connection pipe

1. Align the center of the piping flare with the relevant valve.
2. Screw in the flare nut by hand and then tighten the nut with spanner and torque wrench refer to the following:

Hex nut diameter	Tightening torque (N • m)
Φ6	15～20
Φ 9. 52	31～35
Φ 12	50～55
Φ 16	60～65
Φ 19	70～75



NOTE: Firstly connect the connection pipe to indoor unit, then to outdoor unit; pay attention to the piping bending, do not damage the connection pipe; the joint nut must not be over-tightened, otherwise it may cause leakage. The above table provides the tightening torque required.

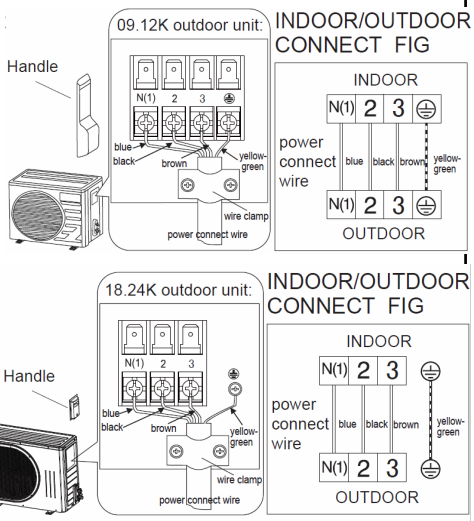
Install outdoor unit

Electric wiring

1. Disassemble the handle on the outdoor unit right side plate.
2. Take off cord anchorage. Connect and fix power connect cord (for cooling and heating unit, connect and fix power connect cord and signal control wire)to terminal block.
3. Fix the power connection cable with cord anchorage, (for cooling and heating unit, use the cord anchorage to fix the power connection cable and the signal control wire)
4. Ensure wire has been fixed well.
5. Install the handle.

NOTE:

- Wrong wiring may cause spare parts malfunction.
- After fixing the cable, make sure there is free space between the connection and connection and fixing.



Air purging and leakage test

1. Connect charging hose of manifold valve to charge end of low pressure valve (both high/low pressure valves must be tightly shut).
2. Connect joint of charging hose to vacuum pump.
3. Fully open handle handle of Lo manifold valve.
4. Open the vacuum pump to evacuate. At the beginning, slightly loosen joint nut of low pressure valve to check if there is air coming inside. (If noise of vacuum pump has been changed, the reading of multimeter is 0) Then tighten the nut.
5. Keep evacuating for more than 15mins and make sure the reading of multi-meter is -1.0 X 10^5 pa (-76cmHg).
6. Fully open high/low pressure valves.
7. Remove charging hose from charging end of low pressure valve.
8. Tighten bonnet of low-pressure valve. (As shown in Fig.10)

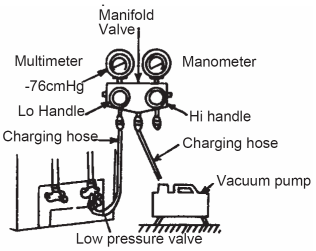


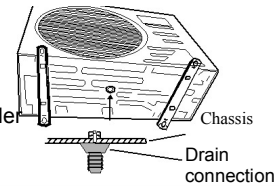
Fig.9

Note : Evacuating the system removes moisture from the system.

Condensate drainage of outdoor unit

The condensation formed during heating mode in the outdoor unit can be properly discharged by drainage pipe .

Installation method: set the drain connection in Ø 25 hole under the condenser. Connect drainage pipe with drain nozzle, to properly discharge water.



◆ Check after installation and test operation

Check after installation

Items to be checked	Possible malfunction
Has it been fixed firmly?	The unit may drop, shake or emit noise.
Have you done the refrigerant leakage test?	It may cause insufficient cooling(heating) capacity
Is heat insulation sufficient?	It may cause condensation and dripping.
Is water drainage well?	It may cause condensation and dripping.
Is the voltage in accordance with the rated voltage marked on the nameplate?	It may cause electric malfunction or damage the part.
Is the electric wiring and piping connection installed correctly and securely?	It may cause electric malfunction or damage the part.
Has the unit been connected to a secure earth connection?	It may cause electrical leakage.
Is the power cord specified?	It may cause electric malfunction or damage parts in the unit.
Is the inlet and outlet been covered? Is ventilation sufficient?	It may cause insufficient cooling(heating) capacity.
Has the length of connection pipes and refrigerant capacity been recorded?	The refrigerant capacity is not accurate.

Test Operation

1. Before test operation

(1) Do not switch on power before installation is finished completely.

(2) Electric wiring must be connected correctly and securely.

(3) Cut-off valves of the connection pipes should be opened.

(4) All the impurities such as scraps and debris must be cleared from the unit.

2. Test operation method

(1) Switch on power, press "ON/OFF" button on the wireless remote control to start the operation.

(2) Press MODE button, to select the COOL, HEAT, FAN to check whether the operation is normal or not.

◆ Installation and Maintenance of Healthy Filter

Installation Instructions

1. Forcibly pull the panel for a specific angle from the two ends of the front panel according to the arrow direction. Then pull the air filter downwards to remove it. (See Fig. a)

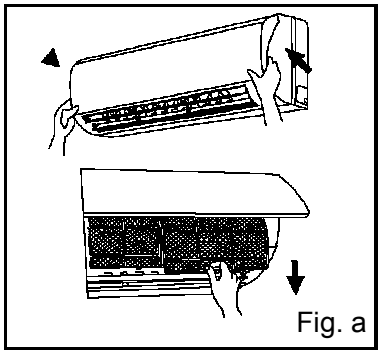


Fig. a

2. Mount the healthy filter onto the air filter, (as shown in Fig. b). If the air filter cannot be installed, please mount the healthy filter on the front case. (as shown in Fig. c)

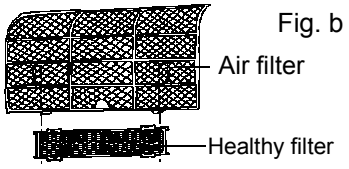


Fig. b

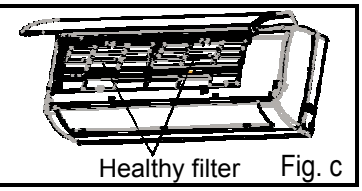


Fig. c

3. Mount the air filter properly along the arrow direction in Fig. d, and then close the panel cover.

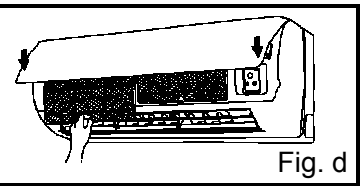


Fig. d

Cleaning and Maintenance

Take out the healthy filter before cleaning and reinstall it after cleaning according to the installation instruction. Pay special attention to that silver ion filter can't be cleaned with water, while active carbon, photocatalyst, low temperature conversion (LTC) catalyst, formaldehyde eliminator, ca-techin or mite killing filter can, but can't with brush or hard things. Dry it in the shade or sun after cleaning, but not by wiping.

Useful Life

The healthy filter commonly has a one year useful life under normal condition. As for silver ion filter, it must be replaced when its surface becomes black (green) or every 6 months under normal condition.

This supplementary instruction is provided for reference to the unit with healthy filter.

ONE (1) YEAR LIMITED WARRANTY
SAVE THIS WARRANTY INFORMATION

EcoAir guarantees this product free from defects in materials and workmanship for a period of one (1) year from the date of purchase, limited to parts only.

Faults arising from a faulty installation is specifically excluded.

This unit must be operated under conditions as recommended, at voltages indicated on the unit. Any attempts made to service or modify the unit by unqualified technician, will render this WARRANTY VOID. The actual product may differ slightly from the illustration. This warranty is in addition to, and does not affect, your statutory rights.

For after sales needs, please visit www.ecoair.org/service or email technical@ecoair.org or contact +44 845 474 3574

We recommend that you note the details of your purchase below and retain your original proof of purchase receipt with this manual. Keep these documents safe in the event of a warranty claim.

Date of purchase: _____

Purchased from (Dealer Name): _____

Retailer name: _____

Model number: _____

Serial number: _____

Date of installation: _____

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